

A French steamship tied up at the loading out gallery of the Port of New York Authority Grain Terminal in Brooklyn. Grain loading is an operation requiring experienced hands as the vessel must be kept on an even keel during its voyage.

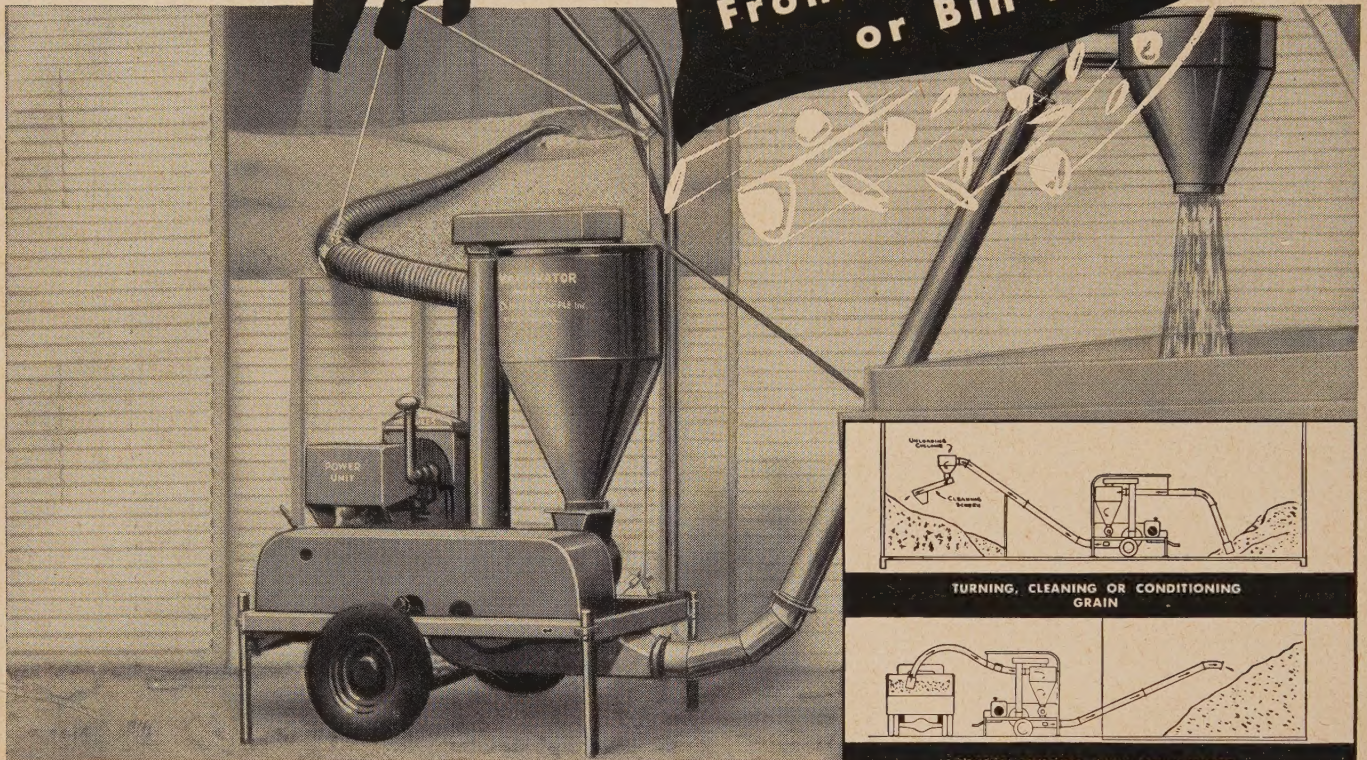
Grain

SEPTEMBER 1950

THE MAGAZINE OF PLANT MANAGEMENT AND OPERATION

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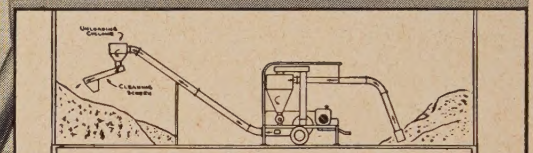
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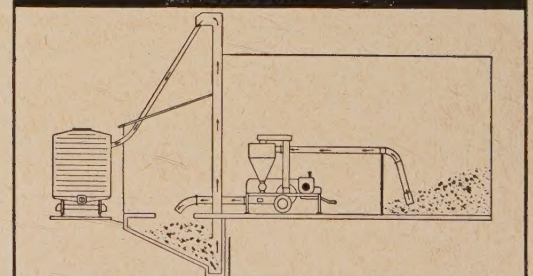
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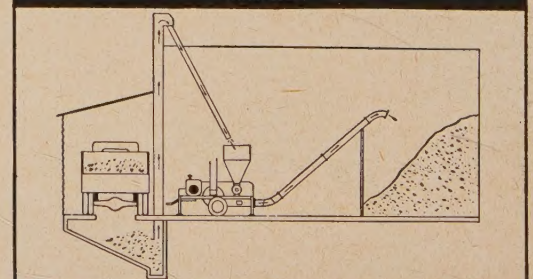
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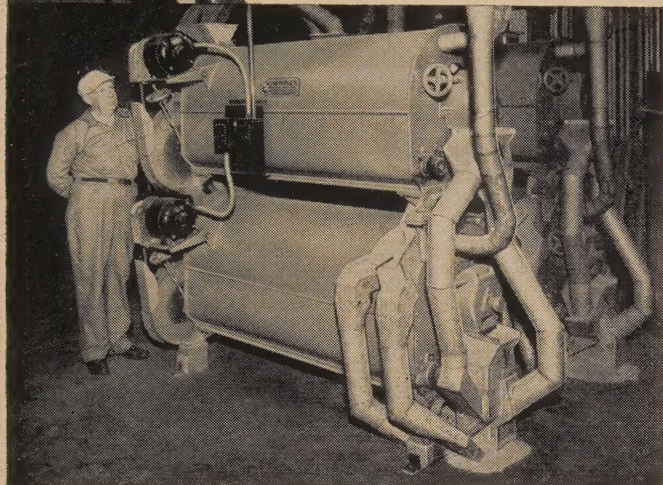
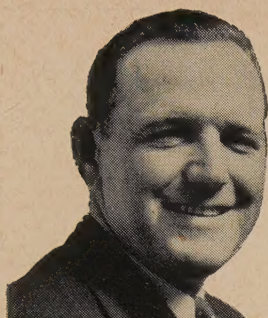


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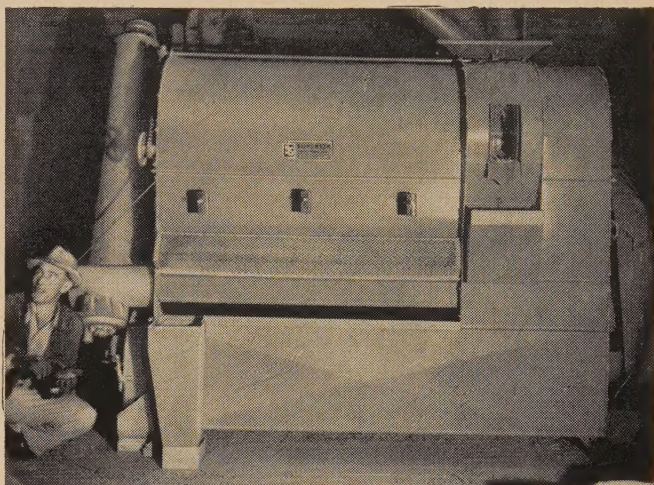


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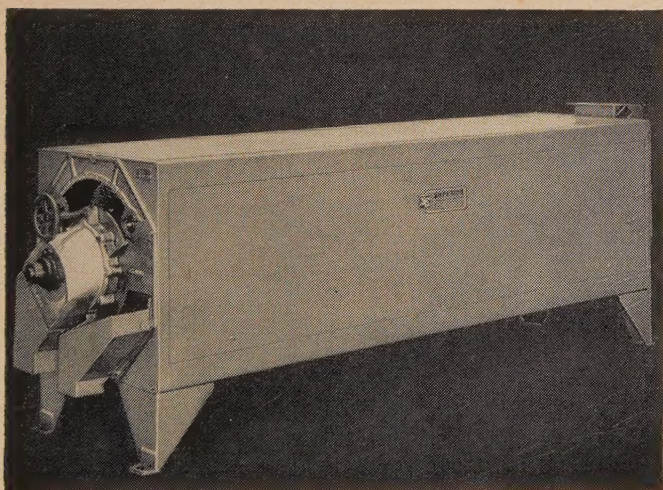
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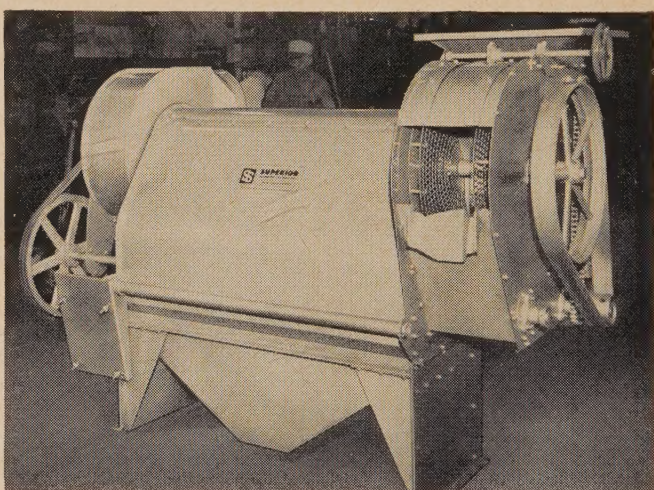
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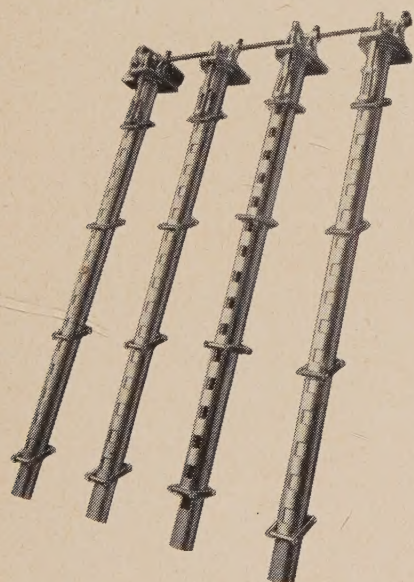
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When the Miller Brewing Company of Milwaukee, Wisconsin, recently launched a 15 million dollar expansion and improvement program, one of three ultra-modern brewery buildings constructed was a combined brewhouse and grain storage building.

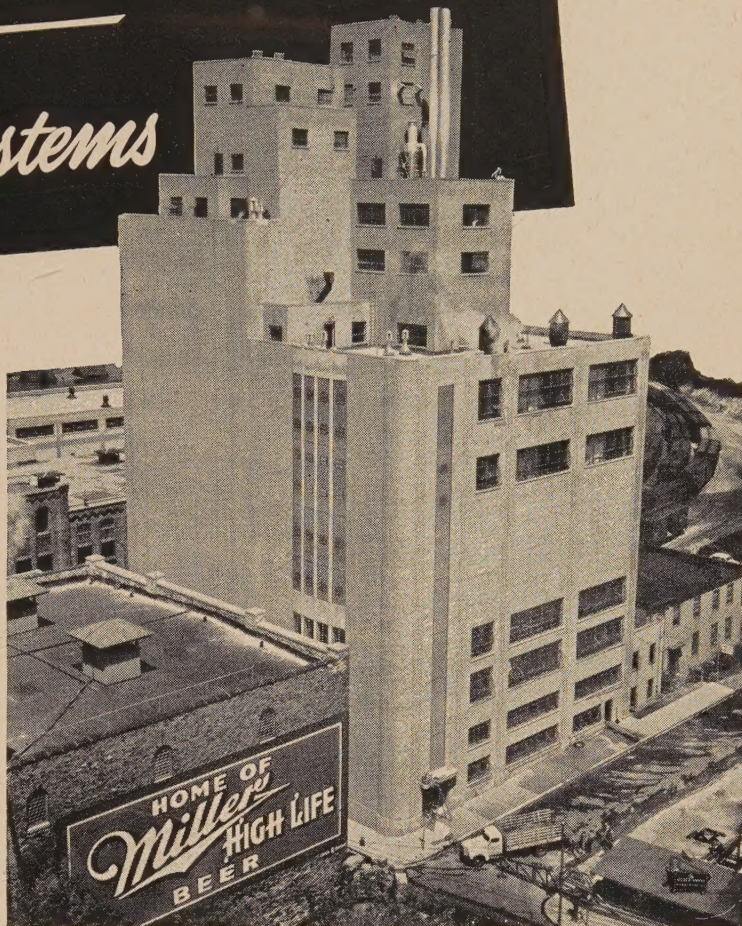
This 12-story structure has a capacity in excess of 300,000 bushels of grain, sufficient for 30 operating days. Movement of some 136,000,000 lbs. of grain through this 200-ft. high building is required to produce 2,500,000 barrels of Miller High Life beer annually.

The control of grain dust and the elimination of dust hazards in this vast operation are of paramount importance. Therefore **DAY DUST CONTROL** was selected and **DAY** engineers designed and installed three complete systems in cooperation with Lawrence Peterson & Associates, Consulting Engineers, and John S. Metcalf Co., Contractors, for the Miller project.

Sources close to the expansion program say, "The equipment has seen service at the Miller Brewing Company for approximately one year and, to date, has performed very satisfactorily."

From Top to Bottom-- **DAY SYSTEMS CONTROL DUST SOURCES**

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The DAY Company engineered, manufactured and installed three complete dust control systems for this ultra-modern brewhouse and grain elevator recently constructed by The Miller Brewing Company of Milwaukee, Wisconsin.

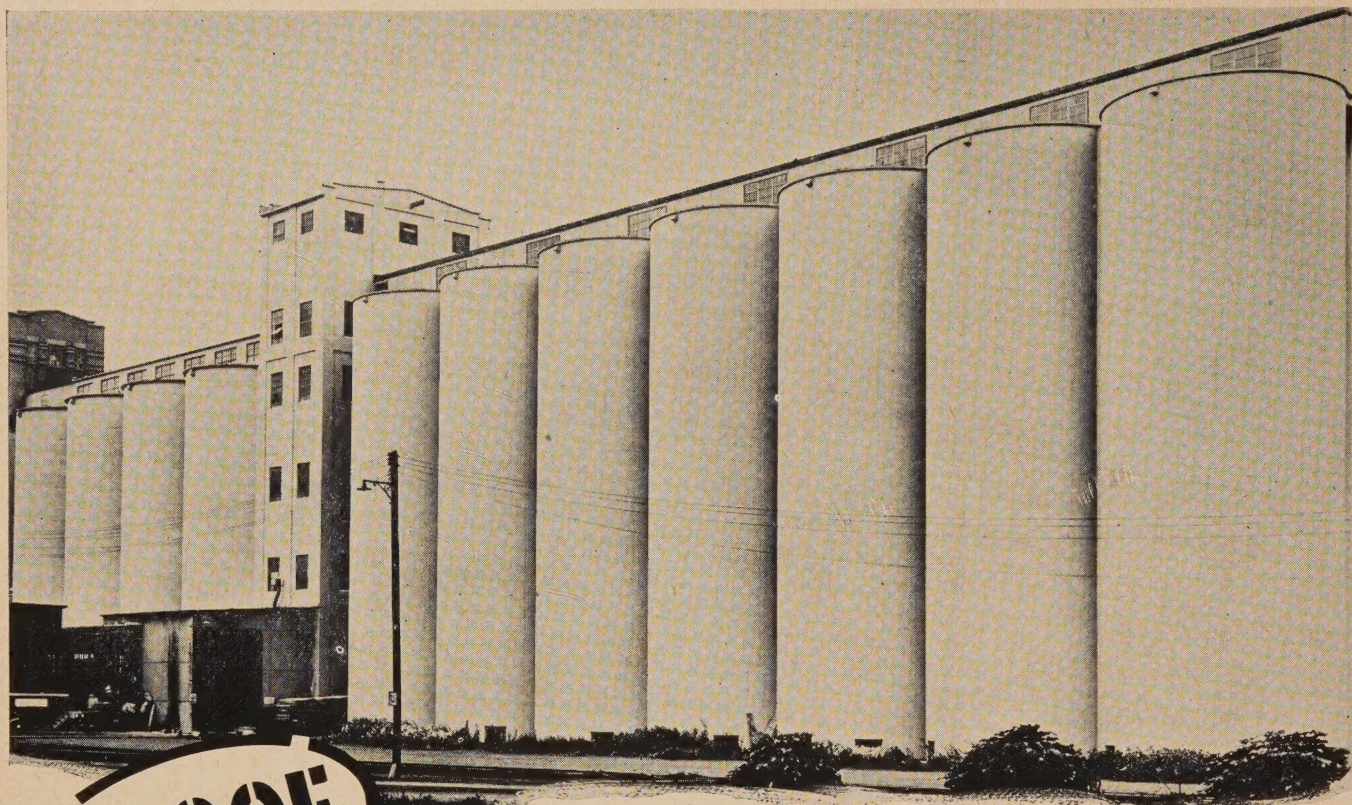
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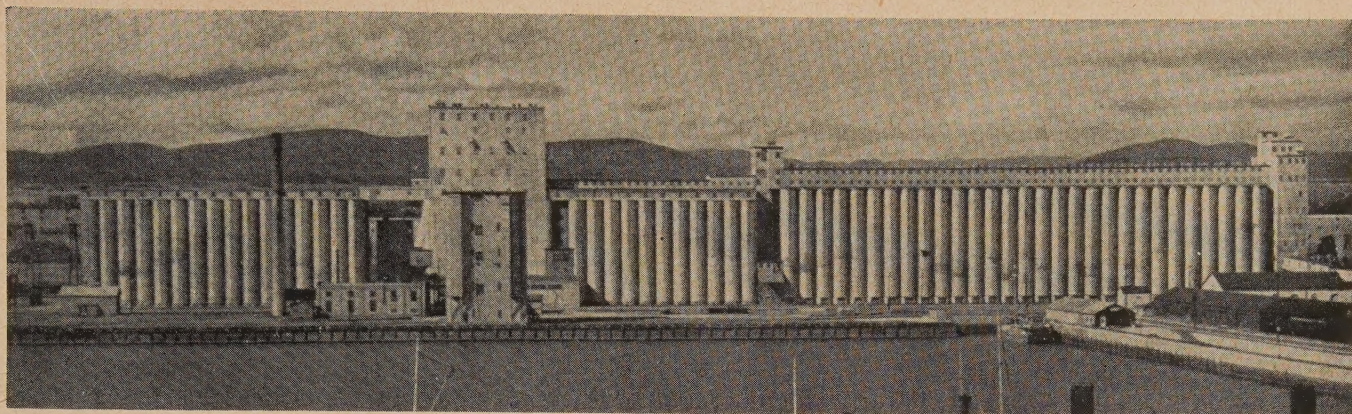


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National Harbour Board Elevator at Quebec

The Canadian Viewpoint on **The Terminal Elevator and Its Functions**

By P. C. WATT

THE first group of terminal elevators in western Canada were built at the Lakehead between 1883 and 1900. Most of these were built by the railway companies. The next group of terminal elevators to be built at the lakehead were built between 1900 and 1910 and most of these were built by grain companies who had by this time developed lines of country elevators.

Most of this group of terminals were only partly fireproof, that is the tanks were usually fireproof and the work houses in most cases were wooden structures.

Commencing about 1915, and continuing until about 1929, a large group, mostly fully modern fireproof terminals, were built at the Lakehead and this constitutes the last big development of terminal elevators in western Canada.

A modern terminal is quite a massive structure and it is amazing the amount of material that goes into the construction of such a plant.

This may be illustrated in some figures in connection with the building of the 5½ million bushel terminal at Port Arthur in 1927. Here are some of the figures:

- 17,000 piles 35–60 ft. long,
- 4,000,000 feet of timber.
- 2,000 tons of reinforcing steel.
- 1,000 tons of steel plate and metal work.
- 1,500 barrels of cement.
- 1,000 tons crushed rock.
- The equipment includes:
 - 65 carloads of machinery
 - 4 miles of belting
 - Over 100 electric motors capable of developing 3500 horsepower.

If all the material and equipment had been hauled to the site at one time it would have required a train of 5,000 freight cars. The total weight of the elevator and equipment is 175,-

000 tons and when the elevator is full of grain that is to its rated capacity of 5,500,000 bushels, it holds a total weight of grain a little short of 175,000 tons.

The contract for this elevator was awarded on May 20, 1927, and the first car of grain was unloaded into the plant on Dec. 15, 1927. The building of a large terminal, therefore, is one of considerable magnitude.

The earliest elevators that were built, were built essentially for the purpose of transferring grain from box cars to boats with little consideration for the requirements of cleaning grain. In those early days the problems of dockage and mixtures of grain were practically unknown and it is only with the increase in acreage and the increased area over which grain is grown, that the problems of dockage, and cleaning, have become of such great importance.

The Grain Cleaning Problem

As crops increased so did weed seeds, and the problem of cleaning and separating grain began to assume more importance. Today, in our modern plants, we have to be equipped to do almost any kind or class of cleaning that the situation demands.

Crops increased rapidly and so also did terminal elevator facilities, so that by 1905 the terminal capacity at the Head of the Lakes was approximately 15 million bushels.

Weed seeds were increasing and tough and damp and otherwise out of condition crops were beginning to make their appearance and, as a natural consequence, hospital elevators were established to meet requirements.

As the country elevator business expanded, it became apparent to their owners that terminal facilities

were necessary for the successful operation of such elevators, so private capital now entered the field of terminal elevators.

Soon the railway companies realized that terminal operation was no longer a matter only of transferring grain from box cars to boats, but was developing into a highly specialized business. They began to turn their elevators over to private companies and within a few years they were entirely out of the terminal elevator business; that is, insofar as western Canada was concerned.

By 1912 most of the elevators at the Head of the Lakes were operated by grain companies who had already developed a line of country elevators, and who were experienced in the handling, cleaning and merchandising of grain.

Demand for Interior Terminal Facilities

In 1916 a government elevator was built at Vancouver. In 1917, 100,000 bushels of wheat were shipped through that elevator to England via the Panama Canal and established definitely the feasibility of this route, as the grain arrived in England in excellent condition.

Development at Vancouver was slow but in 1922, 14 million bushels were shipped from the Pacific Coast, about 10 millions of which went via the Panama Canal and the balance to the Orient.

Since then growth of the Pacific grain route has developed and there are now 10 terminal elevators with a capacity of about 21 million bushels although they are not all in operation at the present moment.

The last western terminal elevator development occurred when the Dominion Government built a 2½ million bushel elevator at Churchill.

Today we find we have terminal and interior elevators from Port Arthur to Vancouver with a total capacity of over 125 million bushels, the most of which is concentrated at Fort William and Port Arthur, where there is now nearly 90 million bushels of elevator space.

The hospital elevator is a name seldom heard these days. Since the Canada Grain Act was revised in 1912, I believe, all Lakehead elevators became either public terminal elevators or private elevators. These private elevators were often referred to as hospital elevators because they bought grain for treatment and promotion and therefore were required to own all the grain in their terminal.

Public terminals on the other hand were strictly warehousemen and were not the owners of any grain they stored. A time went on, owners of public terminals found it necessary to own grain in their own terminals so a new form of license developed, that of semiprivate terminals, carrying on a business which was a combination of a public terminal and a private terminal.

Subsequently, I believe when the act was again revised in 1929-30, the new designation became that of semi-public terminals, which corresponded to that of the previously mentioned semi-private. The designation of private terminal was also returned for those who wished to operate under

a license and who would own all the grain that would be unloaded in their elevator.

Physical Handling of Grain At Fort William and Port Arthur

The details given herein describe what occurs at the head of the lakes, but practically the same system applies as far as possible at all other terminal or interior terminal points.

Every evening the Winnipeg Grain Inspection Department dispatches copies of their inspection sheets to Fort William by passenger train; as this train passes the yard office at Fort William, the packages of sheets are thrown off so as to eliminate any loss of time.

These sheets give a complete record of the inspection of all cars passing through the Winnipeg yards during the previous twenty-four hours and the car numbers are immediately recorded in an index by the Government yard clerk.

When a train of grain cars arrives at the head of the lakes the conductor hands the way bills into the railway yard office, which adjoins the government yard office; that is, the office of the weighing and inspection department of the Board of Grain Commissioners. From these way bills the railway yard clerk writes out a train sheet, listing the car numbers and shipping points.

The government yard clerk is then given the way bills and he also makes out a train sheet in duplicate. The information recorded will include grade, dockage, notations as to whether or not the car has been sampled or if re-inspection is to be made at unloading. It shows if any special samples have to be taken for, say, the Standards Board or the Grain Research Laboratory.

The railway yard clerk now copies the grades on to his sheet and gives the government yard clerk the name of the elevator into which each car has to be unloaded.

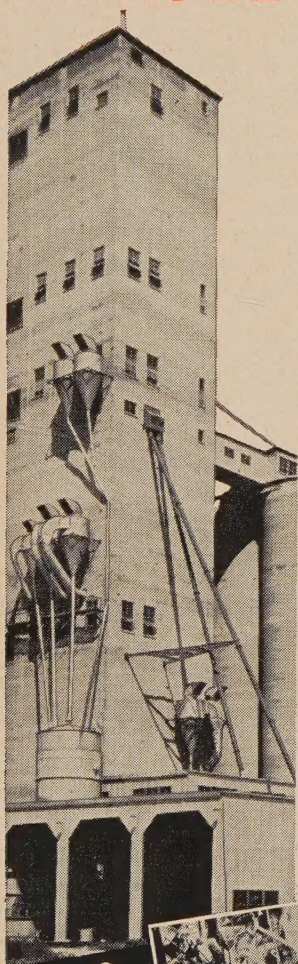
Up to this point, the railway company and the government inspection and weighing department now have a complete record of each car as it arrives in the yards. While this clerical work is being carried on (and it has to be done very expeditiously), the railway investigation department examine the seals and look for evidence of any tampering that might have occurred while the cars were en-route.

From the track sheets already referred to, grade tickets are written out. These are tacked on the cars and indicate the grade and dockage, this information being required at the elevator. At the same time the railway employee is attaching to the cars other tickets showing the elevator into which they have to be unloaded.

Switching Cars

The train having been properly marked and completed, is now ready for switching. A separate track is pro-

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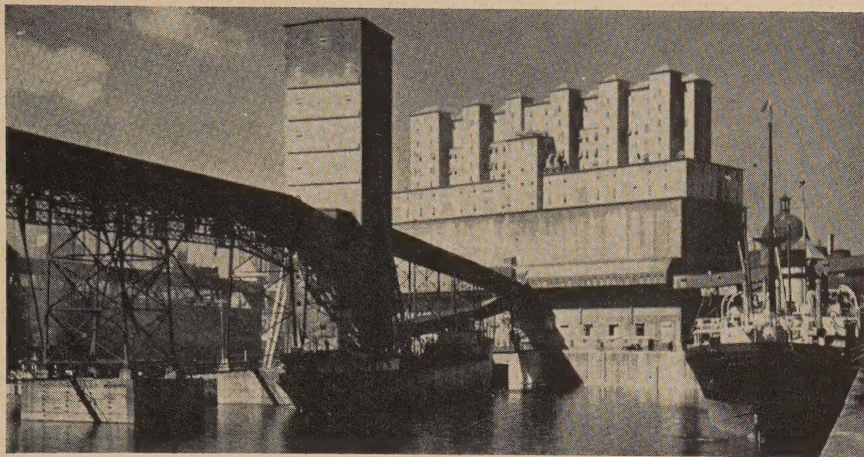
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National Harbour Board Elevator at Montreal

vided for each elevator company in the receiving yards and the trains are now broken up and the cars switched on to their respective tracks. This is done by putting them over a hump, which provides means of switching cars by gravity.

The lead track, known as the hump, has a considerable incline in it and as the engine pushes the car over the top the switchman cuts off the cars for the individual elevators and they run down into the lower yard on to the respective tracks. A brakeman rides on each car in order to control the speed by means of the brake. It is here that the government leak inspector usually keeps a sharp look out, because the banging of the cars together gives a good indication if there is any leak present. The cars are now ready to be delivered to the respective elevators.

A switch engine takes a string of these cars, probably cars for half a dozen elevators, and as he arrives at the outer tracks of each elevator the switchman disconnects the cars for that elevator. The operations so far described, that is, from the arrival of trains in the receiving yard until they are placed at the respective elevators, call for speed and accuracy and good organization, as cars roll into the yards at the Head of the Lakes in the fall of the year at the rate of 1,500 to 2,000 or more a day.

Preliminaries Before Unloading

The grain cars are now on the track at the elevator ready to be unloaded, but before this is done certain preliminaries have to be attended to. An employe of the weighing department proceeds along the line of cars, again examining them for leaks, breaking the seals and opening the outer doors making a record of seal numbers.

Another government employe detaches the grade ticket from each car and makes a record of them in the government office adjoining the elevator. This ticket bears all notations, such for instance, as to whether or not the car is to be re-inspected or surveyed or was too full to inspect at Winnipeg. The elevator office also

makes a record of these tickets and this is being done, as already stated, while the grain doors are being opened, seal records recorded and the load line taken.

The load line is taken by means of a measuring stick placed against the grain door by one of the weighing department employes. Naturally the grain is seldom absolutely level, but he casts his eyes across the grain and he can make a remarkably good estimate of the average depth of grain.

The elevator man in charge of the unloading operations makes up a shunt slip—a shunt being the name given to a string of cars placed on the elevator track. This slip gives full information about each car. One copy goes to the elevator weighman and one to the government weighman. The car is now ready to be unloaded and is hauled into position over an unloading pit by means of a winch, generally called the car haul.

Unloading Methods

There are two methods of unloading cars generally in use. One is the manual system, which is in use at most elevators, and consists of breaking open the grain door and shoveling out the grain by means of a power operated shovel. This power

shovel is an ingenious device. A drum is situated on a revolving shaft a short distance from the car. A cable is wound upon this drum and if you take hold of the end of it and walk away it will unwind easily and as far as you please so long as you do not stop.

The moment you stop, however, it will wind up again and haul you back to the point from which you started. A big iron-shod two handled scoop is attached to this cable and with it the shoveller goes into the car. The moment he stops he digs the shovel or scoop into the grain, the cable jerks taut and the scoop, full of grain, is drawn out of the car and dumped into the pit below.

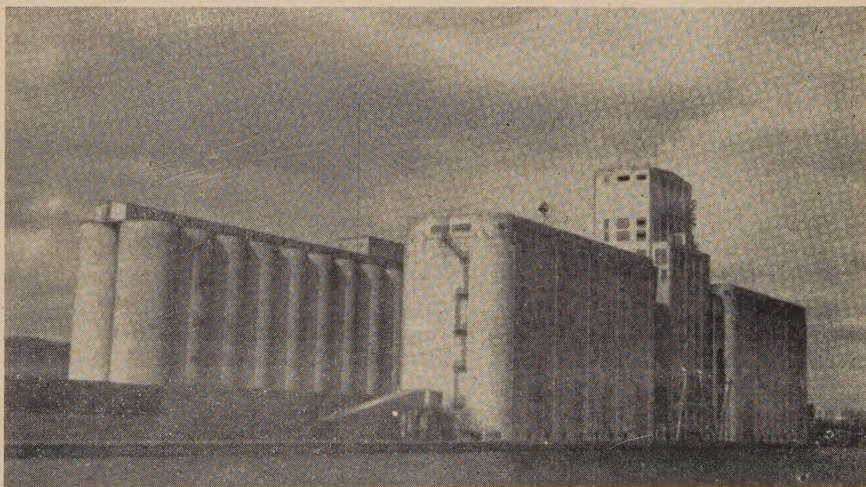
The other method is by means of automatic car unloaders, which, when the grain door has been opened, machinery is set in motion and the car is tipped from end to end and sometimes sideways, with apparently the greatest of ease and all the grain emptied out of it in a few minutes. By this method a car can be unloaded in seven or eight minutes.

The Unloading Operation

While most elevators have an internal telephone system, a system of light signals is always made use of between the scale floor and the track shed. On each track there will be the same number of pits as there are receiving legs and receiving scales; each pit, receiving leg and receiving scale working as a unit.

A government employe is posted in the track shed and another in the basement at the point where the grain leaves the pit and passes by means of a conveyor belt to the boot of the receiving leg, the purpose being to see that the grain passes from the grain car to the scale by means of the belt and receiving leg, without any loss of grain and without any possibility of it being diverted elsewhere.

The receiving weighman on the scale floor has moved a switch which changes the light signal in the track shed, or unloading shed, from red to green, indicating to the track fore-



Searle Terminal Elevator, Fort William, Ont.

man that the scale is empty and ready to receive grain.

The grain having already been dropped from the car into the pit and the car having been swept out he moves a lever which opens the valve at the bottom of the pit immediately over the basement conveyor belt. The grain is conveyed on this belt to the boot of the receiving leg and then carried aloft to the scale garner by means of buckets fastened to the leg belt. As it passes over the top of the leg the grain is discharged down a short spout into the garner above the scale and thence into the scale.

When the grain is all out of the pit on the track shed the track foreman operates a switch which changes his light and the one on the scale floor from green to red. The next car of grain is moved on to the track over the pit and the grain dropped into the pit, as already described, but there it must remain until the signal is changed to green from the scale has been weighed and the scale empty. And so the operation of unloading continues throughout the day.

If any grain should happen, through accident, to fall off the conveyor belt, as the grain passes from the pit to the boot of the receiving leg, the elevator foreman is immediately advised by the government man and the grain is shovelled back on to the belt which conveys it to the boot of the leg and in turn conveys it aloft to the scales. It should be mentioned here that no outlet is permitted from a receiving leg except the one that carries the grain into the scale. This is to insure that all the grain from any particular car can go only to the scale.

Grain Samplers

Automatic grain samplers are installed in most elevators for the purpose of securing an average sample of the grain from each car. The auto-

matic samplers are usually installed at the points where the grain leaves the belt and passes to the boot of the leg. These samples are used by the government grain inspector at the elevator to check the grade and dockage, already established at Winnipeg, or, in the case of held full cars, to determine the grade and dockage for the first time. This work is done by the grain inspector while the grain is being weighed.

The scales at terminal elevators vary in size from 60,000 lbs. to a capacity of 150,000 lbs. Those with the larger scales can weigh most cars in one draft. Those with the smaller scales—two drafts. The grain is now ready to be weighed and this work is done by a government weighman. This is not done by the weighman employed by the elevator. When the scale is balanced the weight is recorded on a cardboard ticket by means of a recording punch. Before the grain passes from the scale, this ticket is taken into the weighman's office and by way of verification is checked against the weight as estimated by the measurement of the grain taken by means of line mark before it was unloaded. The lever under the scale is then opened and the grain passes by gravity down into a workhouse bin immediately over the cleaners.

The grain after it has passed through the cleaners goes to the boot of the cleaner leg in the basement. To get it into the storage bins it is now elevated again and dropped by way of a spout on to a distributing belt. These belts run from the workhouse out over the annex or storage tanks and thence into the tanks. Each annex belt has a tripper on it, which diverts the grain into whatever bin has been determined on. The tripper moves forward or backward into whatever position it is placed by the power of the belt itself. Each lot of grain is deposited in a bin already

designated for grain of that particular grade.

In the meantime the elevator office, the railway office, and the weighing and inspection offices are busy completing their records of that particular day's unloads.

At the elevator office stock sheets, outturns and warehouse receipts are being made up. At the government weighing and inspection office, sheets are being made up listing the cars by grades for each individual elevator. These government sheets are sent to the office of the registrar of the Board of Grain Commissioners in Winnipeg.

The day following the unloading of these cars the railway company's freight sheets are ready and are sent over to the elevator offices, so that they may complete the details of their outturn. The outturn is the terminal elevator's official record, showing the consignee car number, grade, dockage, bushels, freight, weighing and inspection, and cleaning charges.

Warehouse receipts are also made out and along with the outturns and stock sheets are dispatched nightly to the Winnipeg offices of the respective elevator companies. The warehouse receipts are listed on sheets and presented for registration to the registrar of the Board of Grain Commissioners. Up to this point the grain has been unloaded and weighed, cleaned and binned. The records have been completed, the freight charges have been paid by the terminal elevator to the railway company and charged against the grain. The documents for this grain are now available to be used as may be required.—*From an address delivered to the Grain Exchange Lecture Club, Winnipeg.*

THE DAY OF THE SPECIALIST

"GET a man who knows," said Lord Northcliffe, British publisher, and he built his hugely successful newspapers on this simple rule. He always picked a specialist for each important assignment — an engineer to criticize a construction project; an American to describe baseball; a Labor man to report a Labor conference; a yachtsman for a story on yachting.

The grain elevator superintendent, let us remind you, is also a specialist. He has learned his specialized knowledge via the tough road of experience. He didn't learn it all in a day; or a year, but over a long period of time.

SOGES is making the grain world conscious of the highly trained specialists making up its membership. Few specialists learn to blow their own horns. In this case the Society is preaching and teaching their real worth, thus "blowing the horn" for the competent men in the Society. They are specialists to a very high degree.



Odd conical structures used for grain storage in Zacatecas, Mexico.

Making Accident Records More Interesting

By PROF. GEORGE W. HARPER

Dept. of Mechanical Engineering, University of Illinois

THE OTHER DAY I was reading an article on the subject of "Why We Get Tired". We all know of the tired business man who can't keep awake at his desk, but when he finds that he can take the afternoon off, he spends 3 hours, walking 4½ miles chasing a little ball in and out of the rough. The actual energy or work expended was 10 to 20 times that which he would have used at his desk.

This article went on to point out the difference between work and play, between a vocation and an avocation, between a job and a recreation. Do you know the difference? What is it that makes us work twice as hard at golf, gardening, fishing, tennis, or bowling, than we would normally do on our jobs? Sure, I know many of you put a lot into your every day jobs, but at the same time you spend just as much or more on recreation.

The author pointed out the main difference between work and play depends on whether or not we are interested, vitally interested, in what we are doing. It is a fact, there are a lot of people who get fun, pleasure, and recreation out of their daily work. For the most of us this is not true, or at best it is true only part of the time.

To sum it all up, we do what we want to do because we are interested in it. I firmly believe that this is a human trait common to the majority of people. If so, say you "What of it?" Just this, if we are smart enough to realize it, then we ought to be smart enough to use it in our safety program. How can we make accident records interesting?

Dress Up Reports

In the first place we should dress up these reports. Sketches, cartoons, even a little leg art, all go to make dull dry figures interesting. In some plants, where photography is readily available we could make use of pictures. We all realize that the larger the company the more detailed and elaborate must be the report. This means that there is more time and effort available, with usually a larger budget, all of which makes it possible to better illustrate and embellish the report.

If your report is more than a couple pages long, you should place it in a distinctive cover. This should be such that when anyone sees it they think "That's a safety report". Not only will such a scheme add to the

interest, but you will be getting a good return on this thing we call "safety consciousness".

Now, there are some who will ask the question "What kind of a report are we talking about?" So far we have been discussing the format, the layout of the report. However,

let's examine for a moment the contents of an accident report.

The Contents

Here again we run into the item of size. There are large and small plants and there will be a difference in what is needed, and in what is being done by plants of each size. Perhaps we should go back one step farther, before discussing content and define what we mean by a safety report.

What we are talking about is a summary of the accidents occurring in the plant for the previous month. We know of some plants that publish such information each week. Others

Allied Mills of Buffalo installs its 12th BLACK REXALL BELT

■ Allied Mills have 12 elevators in service, and all are using Black Rexall Belts from 6" to 16" in width. Bob Carpenter, Plant Superintendent, says "The Belts remain flexible and I've never had a stretch problem with a Black Rexall Belt, or encountered any trouble with bolt heads pulling through."

Imperial Belts Cost Less to Use

This experience of Allied Mills is not exceptional. It is just another true case history of the operating economy of Imperial's job-designing belting. Black Rexall Belts give longer, more dependable, grain leg service for *less overall cost* because they are made for special, heavy-duty elevating and conveying service.

41 Years of Proven Service

Since 1909, Imperial has manufactured industrial belting exclusively. This wealth of experience is the reason why elevators all over the country are standardizing on Imperial Black Rexall Belts for heavy-duty service. It can help you solve your belting problem, too.



Heavy-Duty Construction

Black Rexall Belts are constructed of extra heavy (37½-ounce) silver duck. All stitching is Inner-Locked—it will not "run" if a thread is broken. High tensile strength and freedom from stretch are other qualities that give these belts longer life, greater economy.

**Imperial has a belt that will best solve
your elevator or conveyor problem.**

.....
Imperial **INNER-LOCKED BELTING**

Engineered Belting—The Right Belt For Each Job

IMPERIAL BELTING COMPANY, 1756 S. Kilbourn Ave., Chicago 23, Illinois

do it every 2 weeks, but most reports are made on a monthly basis. In most cases these go to the supervisors of all departments and others as well. Now this report is not the only item which he receives in the mail. If it has some glamour, if it is interesting he will read it. If not, it will be laid in the pile on the back corner of the desk and maybe lost forever.

The contents are important. First of all such a report should show the frequency and severity rates for the whole plant. Sometimes this is done in the form of a chart, which makes it easy to show by contrast the National figures for all industry and for your particular industry. This is good, but if you use these other figures be sure your record is better, otherwise you may have some explaining to do.

Frequency Rate Chart

A second item which is helpful in arousing interest is a table or chart showing the frequency rates for the various departments, or in larger setups the rates for various plants. In this case it is well to show the figures for the previous month and also for the previous year. Let's compare each department against itself. Sometimes we lose interest when we compare say a drafting room with a boiler shop. However, no one can get angry when you say to him you are doing worse than you did previously.

The third type of information given in this report should be a description of each disabling injury, that is listed in the statistical calculations. If you don't think that other supervisors are interested in these descriptions, it is because you have never made use of them. My experience proves this to me. Many times, I have men in other departments, yes, even in other plants in the company stop me and ask about the details of an accident, or inquire how some injured employee is getting along. The only source of information which they had was the accident report. They had to read it to ask intelligible questions about the injury.

One word of caution, don't make these descriptions very long. Supervisors want to know enough about each case to understand what happened and why it occurred. There is nothing in the world that will kill their interest quicker, than a long detailed account. Be brief, to the point, and at the same time be sure that your facts are right. Of course, in the more serious cases it is wise to give details. Practical experience has shown that this will save time has shown that this will save time.

Other Features

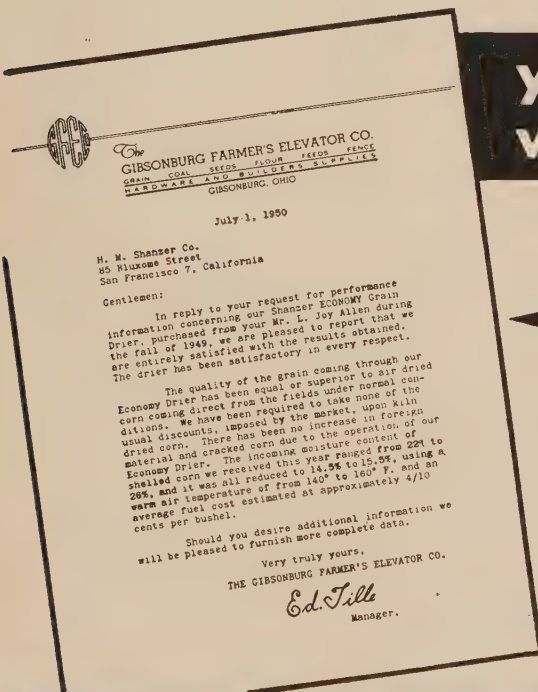
So much for the basic facts of the report. You may ask, "Is there any-

thing else that might be included?". There most certainly is! To attempt to state all the items which might have a place from time to time, or on special occasions would call for a long list. There are three items which we have found to be valuable.

The first of these is a page which we called the "The Accident of the Month". On this sheet we picked up and detailed one of the most serious or potentially serious injuries. It was written up in some detail. Because these sheets were used by the foreman in his safety contacts, his safety meetings and on his departmental bulletin board, greater emphasis was placed on unsafe acts and unsafe practices.

A second special item which was used was a page giving the standings in our interplant contests. This, of course, changed each month, as the frequency rates changed. It, also, was used for bulletin board posting. There was always keen interest aroused in this contest.

A third item, which can be recommended, was a first page giving the highlights of the report. In some cases it told of changes in frequency and severity rates. The best records were mentioned and the contest leaders were given recognition. This sheet or preface did much to create and maintain interest in the accident rates and in the report itself.



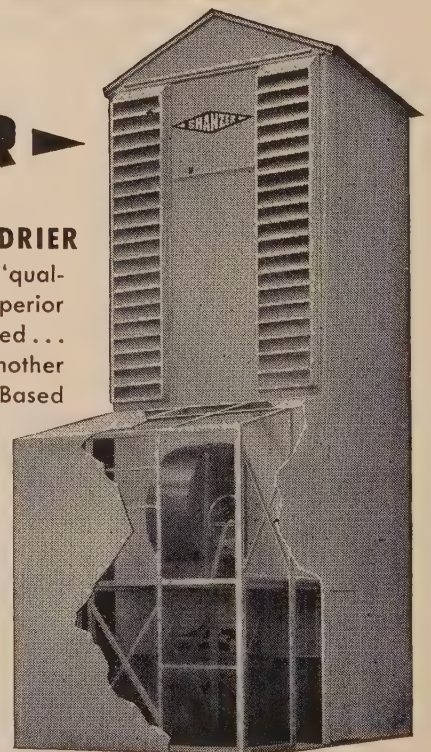
you can take Ed Tille's word for it....

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ECONOMY MODEL GRAIN DRIER

insured his profits. As he says, "quality of the grain . . . equal or superior to air-dried . . . fuel cost estimated . . . 4/10 cents per bushel." Just another SHANZER SUCCESS STORY. Based on the BERICO time-tested principle of processing every kernel in warm air as it comes down free-flowing columns . . . improves quality, assures top market prices. You, too, can make bigger profits . . . write today!

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ON THE SAFETY FRONT

Conducted By
CLARENCE W. TURNING, SOGES Safety Director

MANAGEMENT WANTS TO KNOW

Accident investigations are at most a secondary defense against the hazards that have been previously overlooked. Nevertheless, they are an important part of any good safety program and can be used to ascertain the causes of an accident so that measures may be taken to prevent similar accidents. They also furnish material for publicity purposes and as such aid in the safety education of supervisors and workers.

More important than the facts that we gain from accident investigations is the art of applying those facts more effectively. Too often we investigate an accident, learn the causes, and then fail to eliminate the causes. Or we do eliminate the unsafe condition but blame the unsafe act on "carelessness" and let it go at that.

In any investigation of an accident our approach should be one of accident prevention rather than one in which we place the most emphasis on who is to blame. — *From an address by Glen D. Cross at Midwest Safety Show.*

NATIONAL SAFETY CONGRESS PROGRAM

The 38th National Safety Congress & Exposition will be held in Chicago at four different hotels, Oct. 16 to 20 and promises to surpass previous records. The Exposition has grown to such a size that it will be housed in both the Stevens and Congress Hotels.

The Food Section, to which grain and grain processing belong will hold its sessions in the Morrison Hotel. First session will be held at 2 p.m., Oct. 17 in the Roosevelt Room. Gen. Chairman E. G. Hutzley of the Campbell Soup Co., Camden, N.J. will have the opening address. It will be followed by a Panel Discussion on "Training New and Seasonal Workers."

In the evening a buffet supper is scheduled for the Bungalow on the 42nd floor. There will be a luncheon the following day, Wednesday, at 12:30 in the Roosevelt Room, presided over by Howard T. Bond, Personnel & Safety Mgr., The South Coast Corp., New Orleans, La.

Then there will be several Round Table Discussions. Chairman of the one centering on Grain Handling and Processing will be K. A. Bong, Manager, Insurance Dept., International Milling Co., Minneapolis.

At the same time the Distillers Di-

vision will meet in Parlor F and the Brewers Division in Parlor G for discussions.

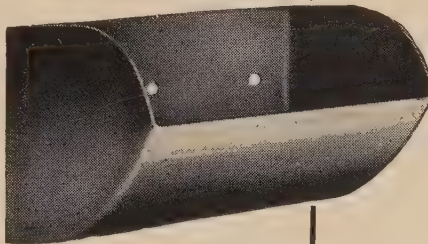
On Thursday afternoon Dr. Clifford H. Kalb, Milwaukee will talk on "Occupational Dermatitis — The Doctor's Role". Walter F. Scholtz, Allis-Chalmers Mfg. Co. Milwaukee,

will discuss the same subject from the standpoint of the Industrial Hygienist.

The American Society of Safety Engineers will meet in the Grand Ballroom of the Stevens Hotel on Tuesday morning Oct. 17. Principal feature is the Report on Research Project — Safety Belts and Harness given by W. P. Yant, Chairman of Research Committee and F. A. Hitchcock of Ohio State University.

On Thursday morning in the Grand Ballroom of the Stevens an entire session will be devoted to "Maintaining Interest in Accident-Prevention."

At the Thursday luncheon in the



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PLACE YOUR ORDERS

Now!

Plan ahead. Be **prepared** to operate at peak efficiency. There's a huge amount of grain to be handled. A **whale** of a big job to be done. The high speed

CALUMET SUPER CAPACITY ELEVATOR CUP

will help you do the job, and right. Its patented Logarithmic curve design has never been successfully imitated. Its performance has never been duplicated.

The world famed Calumet Cup is a hard worker, a fast and willing worker. It scoops up, elevates and **completely** discharges super capacity loads. There's no wasteful backlogging. No lost motion.

You can space the Calumet Closer on belt ... and **that** means increased capacity ... speedier, more economical operation. And you can rely on the Calumet to function successfully over **any** sized pulley, at **any** permissible speed.

Of one piece welded construction, heavier gauge steel, the Calumet is a time tested battler with a fighting spirit that assures a long, long term of useful service.

Ask Your Jobber

Plan ahead. Place your order now.

B. I. WELLER CO.

327 S. LaSalle St., Chicago, Ill.

36 Years of Service To The Grain Trade.



You Get More

out of Biwelco Metal Products because more than 36 years of experience and practical knowhow go **into** their construction.

So, by all means buy Biwelco, if your requirements call for complete elevator legs, heads, boots and elevator legging ... screw conveyor troughs ... bins and sheet metal work to specifications.

Cost estimate and advice of our trained engineers free upon request.

La Salle Hotel, awards will be made for the National Fleet Safety Contest, sponsored by General Motors Corporation. Luncheon speaker is Henry J. Taylor, well-known radio commentator.

Friday morning in the North Ballroom of the Stevens Hotel will be a session on "Industrial Relations and the Safety Engineer."

The annual banquet for the whole Congress will take place on Wednesday evening at the Stevens Hotel.

SIX EASY SAFETY LESSONS

1—"Be careful — the life you save may be your own." This safety lesson places the responsibility squarely on each of you for your own safe acts.

2—Be practical — help the other fellow act safely. You can do something about the untrained driver, the careless driver, the hot rods, and the criminally negligent. You can

help in the education of the public to remove human hazards.

3—Be positive — negative safety is second-rate safety. Learn from the mistakes of others, from tragic newspaper headlines, and most of all from the facts, the accident statistics in your company and the National Safety Council.

4—Be sensible — use common sense to save dollars and cents. One accident can cause financial hardship that blasts a family's best-laid budgetary plans.

5—Be co-operative — don't double cross your accident prevention program. This program primarily is for your protection and your welfare. Support the program we have both by deed and words. Be proud of your driving skill, your no-accident award, the record of your fleet, and the record of your company.

6—Be a good American — safety may not always be a legal requirement, but it is always a moral obligation.

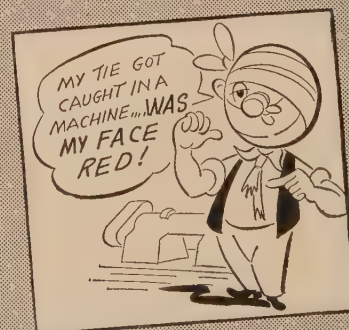
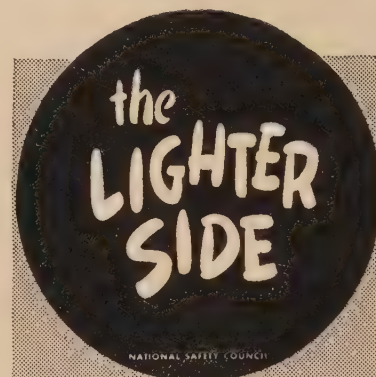
SOGES SAFETY CONTEST — 6-MONTH PERIOD

Unit Code	Man Hours Worked	Number of Lost Time Accidents	Number of Lost Time Days	Frequency Rate	Severity Rate
X-79	83,800	0	0	0	0
X-81	7,144	0	0	0	0
C-23	246,927	8	39	32.3	0.15
O-57	17,465	0	0	0	0
D-151	43,026	0	0	0	0
X-122	37,195	1	2	26.08	0.04
A-141	14,007	1	2	71.3	0.14
X-153	9,074	0	0	0	0
C-156	28,428	0	0	0	0
C-2	381,186	2	7	5.2	0.01
C-140	11,667	0	0	0	0
D-22	43,936	0	0	0	0
C-147	43,058	0	0	0	0
C-159	20,871	1	11	48.8	0.52
K-124	12,031	1	26	83.1	2.16
X-148	13,216	0	0	0	0
O-133	4,794	0	0	0	0
D-3	38,671	0	0	0	0
O-84	Report Not complete for 6-months.				
K-136	66,627	0	0	0	0
X-99	34,475	5	26	145.0	0.75
X-71	178,076	7	2548	38.13	14.25
X-120	10,438	0	0	0	0
K-26	229,295	5	38	21.7	0.10
O-31	16,602	0	0	0	0
M-154	19,757	0	0	0	0
K-125	4,696	0	0	0	0
F-20	101,670	8	82	78.68	0.80
C-105	131,972	1	2	7.5	0.01
K-157	18,132	0	0	0	0
K-158	19,072	0	0	0	0
P-14	17,676	0	0	0	0
X-92	13,385	0	0	0	0
W-63	39,379	0	0	0	0
W-64	27,555	0	0	0	0
K-127	20,393	0	0	0	0
M-25	10,161	0	0	0	0
M-36	6,411	0	0	0	0
M-37	19,557	0	0	0	0
M-38	9,717	0	0	0	0
M-39	11,623	0	0	0	0
M-40	14,168	0	0	0	0
M-41	19,770	0	0	0	0
M-42	13,952	0	0	0	0

SAFETY CONGRESS

Oct. 16 to 20

Food Section Headquarters
Bungalow—Morrison Hotel
Chicago



From National Safety News
Published by
The National Safety Council

tion. You don't murder, rob, embezzle, but can you truly say that you don't commit crimes against human safety? You must have a good moral code of your own. You must believe in health and happiness for all.

Our rights, such as the right to drive a car, are really privileges which should be reserved to those deserving of them. Your moral code will activate you to do those things needed to conserve our human resources through accident prevention. It will make you obedient to the existing legal safety code. It will make you fight for the constant improvement of that code.—*Stan Parsons for NSC.*

PLAN FOR SAFETY CONTESTS

A packaged plan showing how to promote interest in safety through contests, with cash prizes paid by the National Safety Council, is offered in the Council's 1951 calendar contest kit.

The kit contains a complete instruction booklet, showing how to conduct safety contests in plants, monthly contest posters, streamers and contest bulletins for bulletin boards, reproduction proofs and mats of limerick contest cartons, sample entry blank forms for contests, "spot" announcements for public address systems or house organs, and copy for letters and announcements.

Each monthly sheet of the calendar has a human interest color painting and a limerick to be completed by contestants. The simple rules of the contests are printed on the back of the sheets. Practical suggestions for safety in the home, at work or at play also are printed on the back of the sheets.

The National Safety Council offers cash prizes each month of \$100, \$50 and \$25 and 30 prizes of \$5 for the best last line of the current limerick. The kit is free with orders for 200 or more calendars, or with smaller quantity orders if the order provides a calendar for each employee.

HOW FAST ARE YOU DRIVING?

Speed estimated by number of miles per hour is rarely understandable to the driver. Per mile speed, reduced to the number of feet a vehicle travels in a single second, (hardly more than the tick of a clock) becomes frightening to anyone sensible enough to realize the difficulty of stopping.

A virtually perfect simple formula has been developed for reducing speed per mile to feet per second. In fact, this simple formula shows a variable of only 0.4 inch for each mile of speed. Or, the speed of a car traveling 30 miles per hour, when reduced by the formula into feet traveled per second, shows an error of only "one foot" in an entire mile.

The speed per hour shown on your speedometer can be reduced to the

feet traveled by your car in a single second by merely taking one-half of the speed shown on your speedometer, and adding that half to the reading of your speedometer. The total becomes the feet your car is traveling in a single second.

For example: You are driving over a parkway and your speedometer reading is 32 miles an hour. Take one-half of the 32 and add it (16) to the speedometer reading—you have a total of 48. That figure (48) is the number of feet your car travels in a single second when driving 32 miles per hour. In that single second (the time between your anticipating an accident and the reaction of your

mind to brake your car) your automobile travels 48 feet.

Now, suppose that two cars are approaching each other on a highway, each traveling 36 miles per hour. Reduced to velocity in the number of feet per second, that means the two cars are approaching the passing point at approximately 108 feet per second. That's getting together at a very high speed, especially if one car is driven by a reckless driver crowding your side of the road.—*Fleet Supervisor*

An egotist is not a man who thinks too much of himself; he is a man who thinks too little of other people!

The Baffling Problem Of HOW TO TEST GRAIN OF HIGH MOISTURE CONTENT [Up To 40% And More]

**Quickly! Accurately!
Conveniently!
Has Been Successfully
Solved At Last!**

You may think the foregoing statement is more or less of a "Cock and Bull" story. No doubt that would be your natural reaction, for you know what a tough job it always has been to test high moisture corn and other grain... even with the Brown-Duvel which has been the most generally accepted method.

Be skeptical, if you will. Nevertheless it is an utter and absolute fact that the time consuming, fuss and uncertainty of testing high moisture grain has been entirely eliminated. The sensational

**New Model
UNIVERSAL MOISTURE TESTER
Gives You an Accurate Direct
Moisture Percentage Reading
On a Dial Up to 40% . . .
Instantly!**

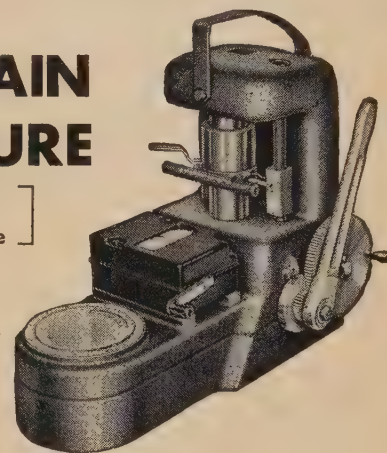
Yes, up to 40% instantly . . . even higher with charts.

Extensive and exacting tests have conclusively proven the accuracy and efficiency of this new Model Universal. It checks out closely with the Brown-Duvel and official oven methods on high moisture grain. Its thorough dependability... its simplicity of operation will give you an urge to toss your hat into the air and cheer.

We shall be happy to send you a Universal Tester for a

Ten Day Free Trial

You can see for yourself how it eliminates costly errors... saves you time and money. Don't delay! Write today for complete details.



Many Notable And Exclusive Features

- Gives direct moisture percentage readings. No charts or mathematical calculations.
- Built-in thermometer automatically indicates temperature of sample. No separate tests necessary.
- Consistently accurate. Gives same reading repeatedly on same sample.
- Makes complete test in less than a minute on grain, seed, feed, flour and other materials.
- Quickly tests frozen, hot or kiln dried samples.
- No electric outlets or batteries required.
- Fully portable. Simple operation.
- Precision built by Sheldrick. Thoroughly dependable. No maintenance.

BURROWS
EQUIPMENT COMPANY

1316-0 SHERMAN AVE. EVANSTON, ILL.

Service and Equipment

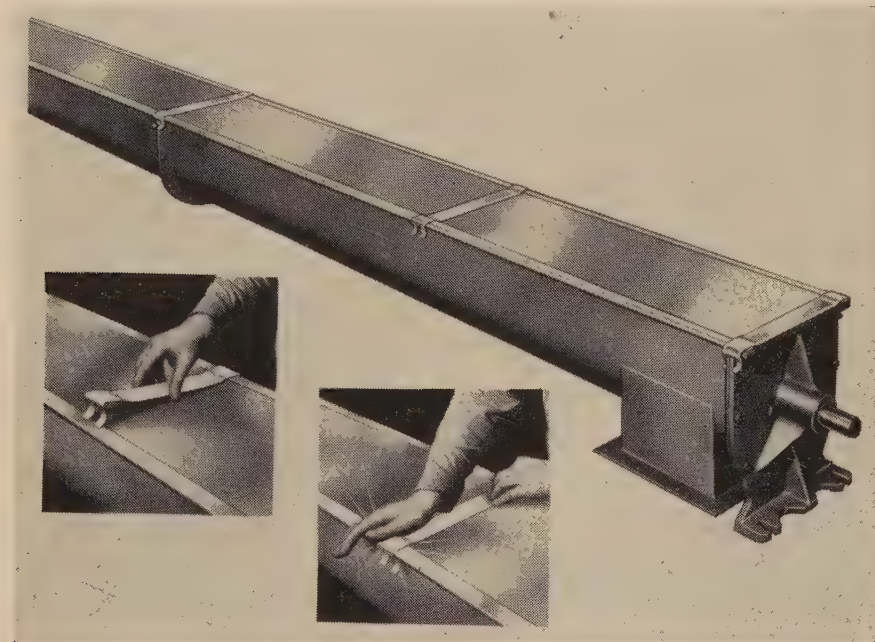
NEW CONVEYOR BOX COVER CLAMP AND "U" EDGING

The time factor of removing bolts and covers from screw conveyor boxes has at last gone into discard! Screw Conveyor Corporation of Hammond, Ind. has perfected "U" edging to fit over the cover and box flange; also, a clamp which snaps on about every

Mr. Walter is now representing Seedburo in western Illinois and eastern Iowa.

In the interim Mr. Walters was employed by the Moorman Mfg. Company and its subsidiary, Pay-U Laboratories. Previously, he represented Seedburo for a year and a half.

Mr. Walter's experience in the grain, feed and seed business totals



Screw Conveyor box showing "Tite-Seal" cover, "U" edging and clamps

5 ft. to hold the cover and edging down tight.

This forms a dust-tight seal much superior to bolting, and likewise eliminates the time spent formerly removing hundreds of nuts and bolts when conveyor boxes were cleaned or fumigated.

The "U" Edging is made to fit all screw conveyor boxes and so are the clamps. No wrenches are needed—simply push on edging, snap clamps into place, and the job is done. Simple—foolproof—economical. Spring steel is used for the clamps and they retain their resiliency indefinitely.

If you want to have your old conveyor boxes equipped with this development, write for "Tite-Seal" cover clamp data direct to Screw Conveyor Corporation, Hammond, Ind. All new Screw Conveyor boxes now come equipped with "Tite-Seal" Clamps and "U" Edging.

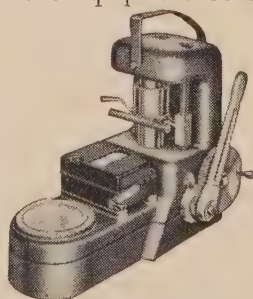
Carl Walter Rejoins Seedburo

Seedburo Equipment Company, Chicago, announces that Carl O. Walter, Quincy, Ill., rejoined the firm recently after a year's absence.

7 years, and he is well qualified to counsel Seedburo customers on moisture testing, processing, handling and related problems.

NEW MODEL UNIVERSAL MOISTURE TESTER

Another Universal Moisture Tester, just made available to the trade by the Burrows Equipment Company, is



Universal Moisture Tester

especially designed to test corn and other grain of high moisture content. It will instantly give a direct moisture percentage reading on a dial up to 40%. Higher readings may be obtained with use of charts.

The instrument is fully portable, consistently accurate and extremely simple to operate. A built-in ther-

mometer automatically indicates temperature of sample, thus eliminating the need of a separate temperature test. Although it operates by electricity, no electrical outlets or batteries are required.

For complete descriptive literature and free trial offer address the Burrows Equipment Company, 1316-O Sherman Ave., Evanston, Ill.

INGRAM RICHARDSON HEADS SCALE COMPANY

Announcement has been made that Ingram Richardson is now President of Richardson Scale Co., Clifton, N. J. He was elected to succeed Herbert E. Godfrey who died early this summer. Henry Richardson (Ingram's father) continues as chairman of the Board.

Ingram Richardson was virtually brought up in the scale business. His training in it was interrupted only by his schooling. Both were extensive. He's a graduate of Haverford College and took a post-graduate course in Business Administration at Harvard.

His first experience with the company was obtained in car dumper installations. Then from 1933 to 1945 he did extensive field sales and installation work during the course of which he established close contact with the grain and grain processing industries and made many friends in the course of it. Recently, he's been serving as Vice-President and Gen. Sales Manager.



Ingram Richardson

INVENTIVE GENIUS ALERTED

How America's independent inventors can best aid their government in the present time of crisis was a topic of discussion at the 10th anniversary meeting of the National Inventors Council, held Aug. 15 in Washington under the chairmanship of Dr. Charles F. Kettering.

This volunteer group of distinguished American scientists and engineers was created in 1940 to act as a link between American inventors and military and other federal agencies with problems requiring technical solution.

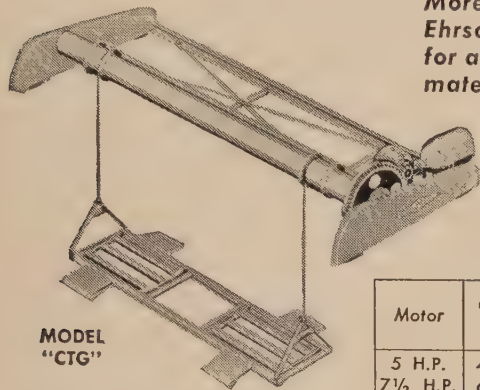
During World War II the Council's staff evaluated over a quarter of a million inventive suggestions, some of which, including the magnetic mine detector, played a vital role in military operations.

At the end of the war the Secretaries of Defense requested the Secretary of Commerce and the Chairman of the Council to maintain the Council in operation, and this has

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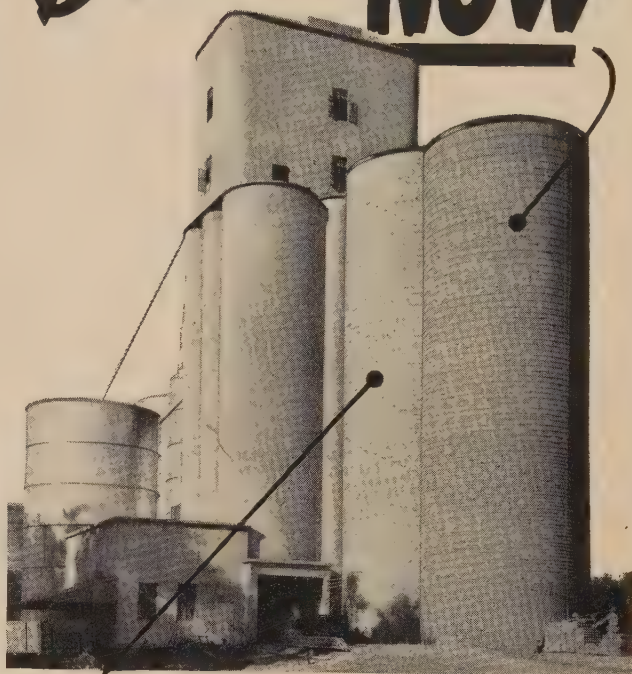
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been done. The Council's staff has been incorporated in the Office of Technical Services of the Department of Commerce.

Periodically after consultation with the military the Council circulates to interested inventors lists covering inventive problems currently of particular importance. The last list released, for example, included a number of problems relating to Arctic operation, such as the need for non-corrosive, extreme low temperature snow-melting chemicals; low-temperature automotive-type batteries and convenient dry battery heaters; rooters for loosening frozen ground; and a portable instrument to give ex-

ceedingly sensitive readings of automotive anti-freeze condition.

Dr. Kettering expressed the opinion at the meeting that the American inventor, as he has in every national emergency in the past, would again play a vital role in the present critical period. He said that the Council's mail has already substantially increased as inventors have begun to respond to the demands of the Korean conflict by sending in an increasing number of technical suggestions. The Council discussed methods to assure the prompt and effective handling of this additional workload.

The Council met for the first time on August 6, 1940 — five years to the

day before the dropping of the atom bomb on Hiroshima. The current meeting, in a period of mounting world tension, took place on the anniversary of the end of hostilities in Japan.

WHY THE GRAIN CAR SHORTAGE?

At a recent meeting of the Mid-West Shippers Advisory Board in Milwaukee, Lawrence Farlow of the Commodity Committee reported as follows:

"Perhaps some explanation of the increase in our estimate of grain car requirements is in order.

"We were asked to make our report about the middle of June. At that time we knew that we had in the Mid-Western area approximately 100,000 cars of corn held on farms pledged to the Government for a loan. The market price of that corn the middle of June was about 5 cents under the Government loan price.

"Under those circumstances, it did not appear that any considerable quantity of that corn would move to market, and it was presumed that it would be stored in steel bins and other local storage. However, with the outbreak of disturbances in Korea, the corn market took an upward turn.

"The market advanced about 7 cents a bushel, to a point where by the middle of last week the country elevators were able to give the farmers 1 to 2 cents a bushel more than the loan price. That meant that the farmer could sell his corn, pay off his loan and make a little profit; and, as a result of that upturn in the market, something like 15,000 cars of that corn has been sold to country elevators and is now offered for shipment and awaiting cars. That is the principal cause for the increase in our estimate.

"In addition to that, there has been some improvement in the general outlook for crops. The last Government forecast shows an improvement of about 3 million bushels in the wheat crop and an improvement in the oats outlook and altogether it looks like a big movement of grain.

"Now I think I should mention at this time that conditions this year will, again, move our soy bean movement forward into the third quarter. Up until last year the bulk of the soy bean crop moved in October. Last year about 80% of the soy beans were moved in September. This may be a permanent change, due to the fact that the farmers are planting an earlier maturing variety of beans, and the difference has the effect of moving them back from October into September.

"We will, no doubt, have the largest soy bean crop ever produced this year, because certain acreage that the Government expects to take out of



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corn and wheat was planted to soy beans. We will, undoubtedly have an exceedingly heavy movement of soy beans in this area beginning about Sept. 10. It will probably amount to 50,000 cars in the Mid-West area.

"Now I am sorry to report that we are experiencing a very severe car shortage at the present time. Last week the elevators received only about 25% of their box car requirements, and this is a little discouraging. We want to appeal to the railroads to do their best for these elevators to provide the service they feel they have a right to expect."

SOGES CHAPTERS AND DATES

1st TUESDAY—Minnesota SOGES Chapter. Robert (Bob) Ranney, Ralston Purina Co., Minneapolis, President; Ray Bakke, Pillsbury Mills, Minneapolis, Vice-President; James Auld, Hales & Hunter Co., St. Louis Park, Secretary.

2nd TUESDAY — Omaha-Council Bluffs SOGES Chapter. Vincent Blum, Omaha Elevator Co., President; W. S. Pool, Nebraska-Iowa Elevator, Omaha, Vice-President; Frank Guinane, Interstate Grain Corporation, Council Bluffs, Secretary.

2nd FRIDAY — Central States SOGES Chapter. M. M. Darling, The Glidden Co., Indianapolis, President; N. R. Adkins, Ralston Purina Co., Lafayette, Secretary.

3rd TUESDAY — Kansas City SOGES Chapter. Andy J. Olson, Cargill, Inc., Kansas City, Mo., President; Robert T. Congrove, Standard Milling Co., Kansas City, Mo., First Vice-Pres.; L. C. Smith, Machinery & Supply Co., Kansas City, Mo., Second Vice-Pres.; R. K. Krebs, Norris Grain Co., Kansas City, Mo., Secretary-Treasurer.

3rd TUESDAY and 1st MONDAY, alternately — Chicago SOGES Chapter. Harry Hanson, Glidden Co., Chicago, President; Dale E. Wilson, Northwestern Malt & Grain Co., Chicago, Vice-President; Russell Paarlberg, Farm Bureau Milling Co., Hammond, Ind., Secretary.

3rd THURSDAY—Buffalo SOGES Chapter. Cornelius Halsted, General Mills, Inc., Buffalo, President; James Burns, Pillsbury Mills, Inc., Buffalo, Secretary.

GOMPERS HAD WORD FOR IT

"Doing for people what they can and ought to do for themselves is a dangerous experiment. In the last analysis, the welfare of the workers depends on their own initiative . . .

"Whatever is done under the guise of philanthropy or social morality which in any way lessens initiative is the greatest crime that can be committed against the toilers."—*Samuel Gompers.*

THE BARLEY BIN

WHAT'S NEW IN BARLEY?

By Dr. John H. Parker

THE SMALL VOLUME of 208 pages on "Barley Cultivation in Ireland," written by Alan McMullen and published in 1909, contains a wealth of information on the field and laboratory experiments with malting barley conducted in Ireland by the Dept. of Agriculture and Messrs. Arthur Guinness, Son and Co. Ltd., Dublin.

In his book on "The Barley Crop," published in 1926 by Dr. Herbert Hunter (then a staff member in the Plant Breeding Institute, University of Cambridge, now a partner in the Pure Seed Co., Ltd., Cambridge, England) this author presents "a record of some recent investigations" on barley conducted by the Dept. of Agriculture for Ireland, with Messrs. Guinness. He also describes the Danish Barley Experiments, begun in 1883.

The book on "Barley" written by the late Dr. E. S. Beaven of Warminster, England, gives a detailed record of his 50 years of observations and experiments on barley.

In his book, "American Barley Production, A Study in Agricultural Geography," Dr. John C. Weaver, Dept. of Geography, University of Minnesota, traces the history of barley in the United States from Colonial times through 1947. This book includes a noteworthy series of

maps, also statistics of barley acreage and production for six North Central States, 1924-1947.

This research on barley geography and the publication of the book, were sponsored by the Midwest Barley Improvement Assn.

"Barley — The Ancient One"

In ancient Greece it was traditionally believed that barley was the first form of food given to mankind by the gods, and most botanists and archaeologists seem to agree that barley was one of the first plants to be cultivated. In the valleys of the Tigris and Euphrates and the Nile, ancient strawlined barley storage bins have been found by archaeologists which have been tentatively dated at about 20,000 years old.

Barley's ability to grow where the season is short and the climate cool was a real factor in the northward movement of agriculture. In Sweden and Norway barley is grown as far north as the 70th parallel. In this Land of the Midnight Sun it produces a crop in the short but intense season.

On the high plateaus of Tibet it has been grown at 14,000 ft., an altitude that makes even the long-haired, grunting yak short of breath. As agriculture moved north, barley was the pioneer grain.

Years before the *Mayflower* hove to at Plymouth Rock, small plots of barley were nodding their bearded

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heads from Nova Scotia to Virginia. Captain Bartholomew Gosnold, of Falmouth, Eng., is reported to have brought the first seed barley with him when he landed near New Bedford, Mass, in 1602. — *From: BARLEY, By T. E. Stoa, The Farm Quarterly, Cincinnati, Ohio, Autumn, 1948.*

Barley in Antiquity

In the great laboratory of Asia, Europe, and Africa, unguided barley breeding has been going on for thousands of years. Types without number have arisen over an enormous area. The better ones have survived. Many of the surviving types are old.

Spikes from Egyptian ruins can often be matched with ones still growing in the basins along the Nile. The Egypt of the Pyramids, however, is probably recent in the history of barley.

In the hinterlands of Asia there were probably barley fields when man was young. The progenies of these fields with all their surviving variations constitute the world's priceless reservoir of germ plasm. It has waited through long centuries.

Unfortunately, from the breeder's standpoint, it is now being imperiled. When new barleys replace those grown by the farmers of Ethiopia or Tibet, the world will have lost something irreplaceable. — *From: PROBLEMS AND RESULTS IN BARLEY BREEDING By: H. V. Harlan, Prin. Agronomist and M. L. Martini, Asst. Botanist, Div. of Cereal Crops & Diseases. U. S. Dept. of Agriculture Yearbook Separate No. 1571.*

World Wide Adaptation of Barley

Barley fields are found widely scattered over the more temperate parts of the world. They also form a picturesque part of the agricultural frontier. Barley fields occur in Europe, north of the Arctic Circle, and also on the plains of India.

Barley is grown on the high plateaus of Tibet. It climbs still higher up the slopes of Mount Everest, where one form protects itself from the wind by a recurved stalk that places the heads almost on the ground.

It is found fringing the oases of the Sahara or growing beneath the date trees. Barley is the crop that is grown highest up on the mountain peaks of Ethiopia, where pools of water are often frozen over beside the growing grain. It is cultivated in the Lower Delta of the Nile,

where brackish water lies 18 inches below the surface.

Arab farmers are seeding barley on the dry hills of Mariout along the Mediterranean in northwestern Egypt where the rainfall is but 8 inches, just as they were in the days of Rome, and Chinese peasants are growing age-old varieties in their western hills.

Barley is cultivated by Hindus, Turks, and Japanese. It is grown by Russians, Berbers, and western Europeans. It is one of the grain crops of a hundred peoples throughout the temperate world. It is man's most dependable cereal where alkali, frost, or drought are to be encountered.

Its greatest acreage, however, is found under more favorable conditions. It grows particularly well where the ripening season is long and cool. This is especially true in sections where the rainfall is high, for while it will stand much heat in the absence of humidity, it does not mature so well in hot humid weather.

It grows better with moderate rather than excessive rainfall, better on well-drained lands than on waterlogged or sandy ones. — *From: PROBLEMS AND RESULTS IN BARLEY BREEDING By: H. V. Harlan, Prin. Agronomist & M. L. Martini, Asst. Botanist, Div. of Cereal Crops & Diseases. U. S. Dept of Agriculture Yearbook Separate 1571.*

World Barley Production, 1949

	Million Bus.
1. U.S.S.R.	310
2. China	305
3. U.S.	238
4. Canada	124
5. India	106
6. United Kingdom	95
7. Spain	79
8. Japan	75
9. Denmark	72
10. France	65
11. Turkey	55
12. French Morocco	50
13. Czechoslovakia	48
14. Algeria	45
15. Iraq (Mesopotamia)	35
16. Iran (Persia)	30
17. Argentina	30
18. Australia	19
19. Tunisia	17
20. Italy	11
21. Belgium	11
22. Austria	10
23. Finland	9
24. Greece	8
25. Ireland	8
26. Netherlands	8

27. Pakistan	8
28. Sweden	8
29. Egypt	7
30. Portugal	5
31. Norway	4
32. Chile	3
33. New Zealand	2

Barley Production in United States, 1949

States	Million Bus.
California	47
*North Dakota	26 1/2
*Minnesota	25 1/2
Colorado	23
*South Dakota	15
Montana	12
Idaho	10
Oregon	10
*Wisconsin	6 1/3
Utah	6
Nebraska	6
Arizona	5 1/2
Pennsylvania	5 1/2
Wyoming	5 1/3
Kansas	4
*Michigan	3 1/2
Washington	3
Maryland	3
Texas	3
Virginia	3
Missouri	2
New York	2
Kentucky	1 1/2
Oklahoma	1 1/2
Tennessee	1 1/3
Nevada	1
*Illinois	1
North Carolina	1
*Iowa	8/10

United States	238
Seven Midwest States	79

*Midwest States

Prospective Barley Acreage, 1950

Farmers' "Intentions To Plant" report of Mar. 20, 1950, showed these prospective barley acreages:

	1950 1000 Acres	% of 1949
North Dakota	2,445	132+
South Dakota	1,420	115+
Minnesota	1,404	128+
Wisconsin	204	108+
Michigan	129	100—
Iowa	50	156+
Illinois	35	109+
Seven Midwest States	5,687	125+
United States	13,879	124+
Canada	7,000	116+

The acreage of barley planted this year may deviate, up or down, from these "Farmers' Intentions To Plant" figures. The long winter, late spring and serious floods in the Red River

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Valley of North Dakota and Minnesota, may cause shifts from spring wheat and oats to barley, and if the planting season is much further delayed, from barley to flax.

Marketing and Utilization of Barley

More than 1/2 is fed on farms where grown. About 25 million bus. is used for seed. About 105 million bus. are needed for the 97 million bus. of malt used in 1948-1949.

Brewing 81 million bus.
Distilling 9 1/2 million bus.
Food & Pharmaceutical 2 to 3 million bus.
Exports 4 million bus.

Minneapolis is the leading cash barley market, receiving 54 to 78 million bus. annually, in recent years, shipping 41 to 58 million bus. each year. Chicago receives from 12 to 20 million bus. of barley each year, ships from 3 to 8 million bus. Milwaukee receives 35 to 40 million bus. of barley, ships from 10 to 14 million bus.

Kansas City receives 1 to 7 million bus. of barley, ships about the same amount. St. Louis receives from 2 to 4 million bus. of barley annually. Omaha receives from 2 to 8 million bus. of barley each year, ships about the same amount. Great Lakes shipments of barley range from 13 to 57 million bus. annually. — *From an address made before the Agricultural Council, Chicago Association of Commerce and Industry, May 12, 1950. The second part will appear in an early issue.*

THE HONOR ROLL

Standing of members who have secured new SOGES members since the last convention. If YOUR name isn't on the list try to put it there by next month.

John Mack	4
James Auld	3
Lee McGlasson	3
Ward Stanley	2
Ralph Yantzi	2
Jack Kitching	2
Paul Christensen	2
Ed. Christie	2
R. K. Krebs	2
Henry Onstad	1
Richard Harfst	1
Wm. Weatherly	1
Sid. Cole	1
Charles Winters	1
Ed. Raether	1
Art Osgood	1
Lewis Inks	1
Felix Schwandner	1
Wm. Gassler	1
Claude Darbe	1
Total	33

Profit is the lifeblood of industry's expansion and the welfare of the people. Production for profit is the keystone of America's unparalleled achievements.—Glenville Kleiser.

Plants and People

BURNS BACK ON JOB

John Burns, Pillsbury Elev. Superintendent at Buffalo, has a thoroughly mended leg (it having been broken several months ago) and is back at work with full vim and vigor. He has also resumed his job as secretary of the Buffalo SOGES Chapter. During his convalescence, Jack Hitching of GLF, Inc., has been ably substituting for him as secretary.

JAMES MCCONNELL DIES

Friends of James McConnell, Fegles Construction Co., Minneapolis, were saddened to learn of his death last month. Burial services were held on Aug. 28. Before his Fegles connection, Mr. McConnell had been with Chris. Jensen Co., Minneapolis, Screw Conveyor Corporation, Hammond, Ind.; and James Stewart Corporation, Chicago.

STALEY TO BUILD NEW OHIO PLANT

Construction work will be started soon on a new, modern soybean processing plant at Painesville, Ohio by the A. E. Staley Mfg. Co., Decatur, Ill. The solvent extraction process will be used. Capacity will be 10,000 bus. per day.

It will replace an older expeller plant which the Staley company has operated at Painesville since 1939. It will have 25% more capacity than the existing facilities.

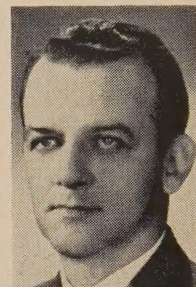
Staley officials said all major equipment for the new plant has been purchased and a large engineering force

assigned to the project. Actual construction work is expected to start in January or February, with completion scheduled for the fall of 1951.

The Painesville extraction plant will be the third of this type built by the Staley company, oldest soybean processor in the nation.

RANKIN NAMED MANAGER

Indianapolis — James C. Rankin, manager of the feed mill division of the Glidden Co. since May, 1949, has been named manager of the company's new \$3,000,000 soybean processing plant, the 1,500,000 bu. elevator and Paint and Varnish Division warehouse. He announced four new automatic dust filters have been installed at the new soybean plant.



James C. Rankin

Mr. Rankin joined the Glidden Co. in 1942 as director of retail stores and since has served in a number of important positions for the firm, including assistant to the manager of the industrial and transportation sales, manager of the specialty sales department, executive assistant to the president, and then manager of the feed mill division.

While in Cleveland, he had served as first treasurer and second president of the Cleveland Junior Chamber of Commerce and had devoted much time to Community Chest and Red Cross work. During the war he served as a lieutenant in the Navy.

Mr. Rankin will work in co-operation with R. G. Golseth, vice-president in charge of the Soya Products Division; Paul E. Sprague, vice-president, and A. D. Duncan, vice-president in charge of the Paint and Varnish Division, Dwight P. Joyce, president, stated in announcing his new appointment.

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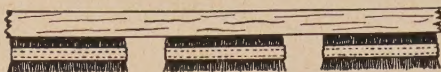


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BARBECUE AT KANSAS CITY

The Kansas City SOGES Chapter held a stag barbecue on Saturday, Aug. 19. The event was well-attended and everyone had a good time even though (as Secy. R. K. Krebbs reports) the weather was exceedingly cold for that date.

OUT-OF-TOWN VISITORS

Andrew Rankine, Canada Malting Co., Montreal, Que.

Richard Swenson, Board of Port Commissioners, New Orleans, La.

M. M. Darling, The Glidden Co., Indianapolis, Ind.

Oscar Olsen, Retired, Duluth, Minn.

Henry G. Onstad, Burlington, Wis.

Clarence W. Turning, SOGES Safety Director, Minneapolis, Minn.

IN THE HOPPER

Junior was a problem child, but the psychiatrist said he must be humored.

"I'll get you anything you want to eat," said the father.

The child thought a moment: "I want an earthworm."

In the back yard the father found one and set it before Junior.

"I want it cooked," Junior objected. The father took the worm back to the kitchen and boiled it. The child regarded it critically, "You eat half," he told his father, "and I'll eat the other half."

The long-suffering father managed to choke down half the earthworm. Suddenly the child let out a wild howl.

"You ate my half!" he wailed.

A rich asbestos manufacturer built a fine house just across the street from the residence of a sweet-spirited old lady and his family proceeded to enjoy themselves in what seemed to her a very worldly fashion. But the old lady was never known to speak ill of anyone, even when her neighbors played tennis on Sunday. She only said: "Dear me, they must have great faith in their asbestos."

An income tax collector was walking along the street with his boss, saw a \$10 note lying on the pavement and pounced upon it.

"What do you think?" he said to his boss, after examining it carefully. "It's a good one, isn't it?"

His boss took it and examined it in turn.

"Perfectly good," he pronounced, handing his assistant \$3.75 change.

First Golfer: "I suppose you heard that poor old Jim killed his wife."

Second Golfer: "No! How?"

First Golfer: "With a golf club."

Second Golfer: "How many strokes?"

A butter-fingered man who had been suffering from a long siege of unemployment at last found a job in a chinaware house. He had been at work only a few days when he smashed a large vase. He was sum-

moned to the manager's office and told by that dignitary that he would have to have money deducted from his wages every week until the vase was paid for.

"How much did it cost?" asked the culprit.

"Three hundred dollars," said the manager.

"Oh, that's wonderful," he said.

"At last I've got a steady job!"

A fellow who just returned from a vacation out West says it's easy to pick out the poor folks in the Oklahoma oil country. They wash their own Cadillacs.

An Englishman was conversing with the clerk at the Ambassador Hotel. "Here's a riddle," said the clerk. "My mother gave birth to a child. It was neither my brother nor my sister. Who was it?"

Englishman: "I can't guess."

Clerk: "It was I."

Englishman: "Ha, ha! Very clever. I must remember that."

The Englishman then told the story at his club. Said he, "Here's a riddle, old top. My mother gave birth to a child, and it was neither my brother nor my sister. Who was it? You can't guess? Do you give up?"

"Yes," said his friend.

"Ha, ha! It was the clerk at the Ambassador Hotel."

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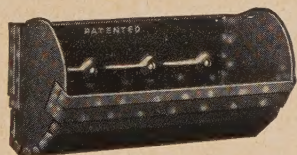
Intelligent and energetic man, age 25-35 years, with comprehensive knowledge of grain for Ohio elevator. Primarily a soy bean processing plant but also handles wheat and corn. Splendid opportunity with good salary and working hours. For interview write — Box 7G50, GRAIN, 327 S. LaSalle St., Chicago (4), Ill.

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for names of distributors
and analysis form No. 20

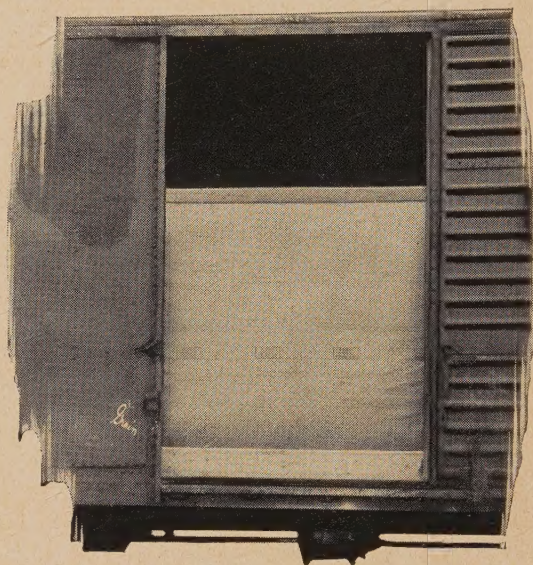
FACTS...NOT FICTION

SIGNODE one-piece GRAIN DOORS -ONE MAN applies



*"Only 1 Signode one-piece Grain Door
needed to cooper a car doorway..."*

not six!"



Signode Grain Doors are made of strong steel strapping scientifically spaced between laminations of heavy, water repellent kraft liner board.

Height—6 ft.

Weight—14 lbs.

Provide positive protection because weight of load seals sides and bottom flap.

APPROVED

American Association of Railroads, Pamphlet 36, revised. Send for your free copy and complete details on Signode Grain Doors.

SIGNODE STEEL STRAPPING COMPANY



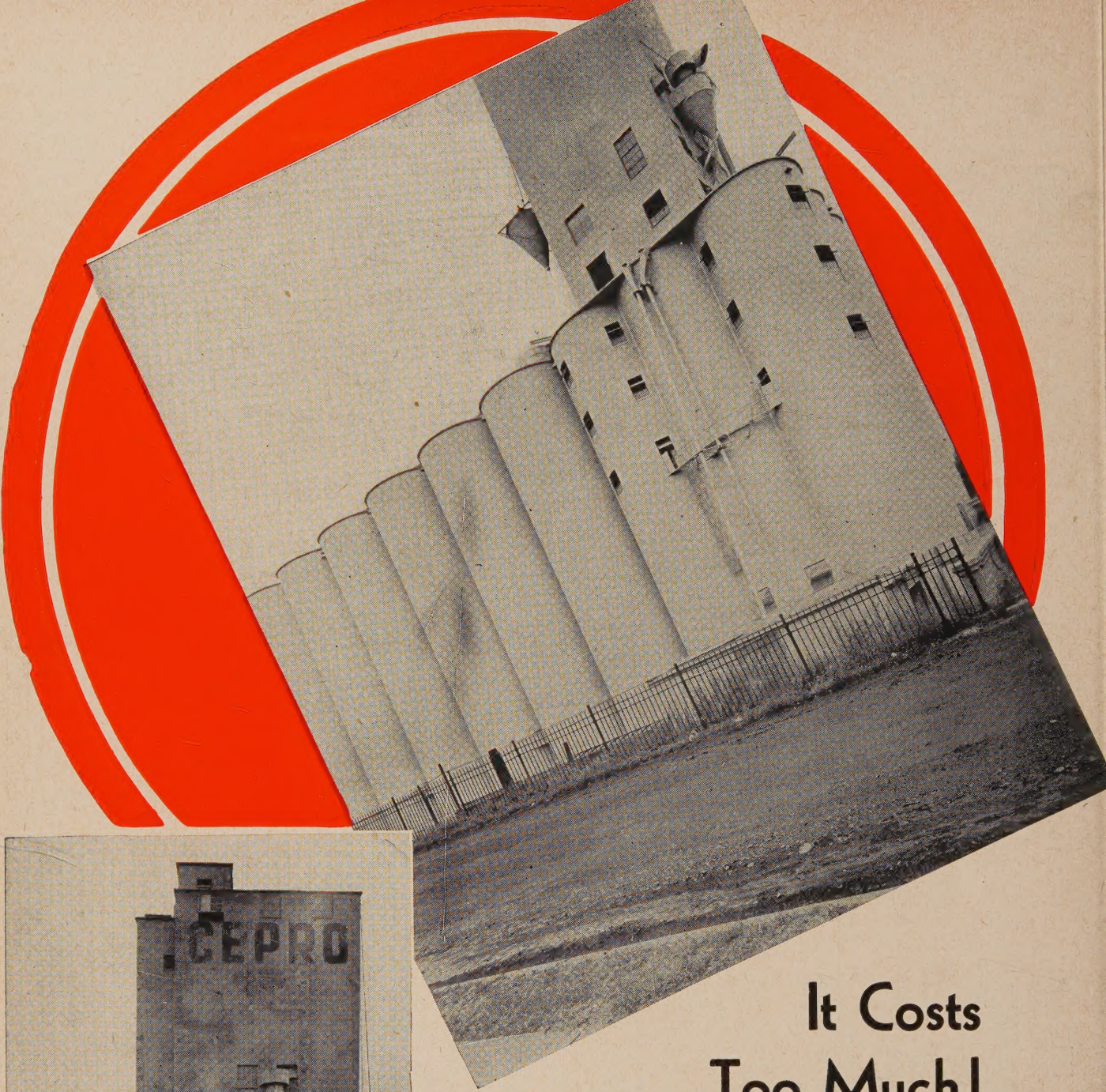
Railroad Sales Division

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